

H. Park

1600 RUSH

CRF Errors Corrected by the STIC Systems Branch

Serial Number:

09/701,588C

CRF Processing Date:

12/16/2002

Edited by:

Verified by:

(STIC staff)

ENTERED

#10

☐

Changed a file from non-ASCII to ASCII

☐

Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐

Edited a format error in the Current Application Data section, specifically:

☐

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____

☐

Added the mandatory heading and subheadings for "Current Application Data".

☐

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐

Changed the spelling of a mandatory field (the headings or subheadings), specifically:

☐

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

☐

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

☐

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐

Inserted colons after headings/subheadings. Headings edited included:

☐

Deleted extra, invalid, headings used by an applicant, specifically:

☐

Deleted: ☐ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____

☐

Inserted mandatory headings, specifically: _____

☐

Corrected an obvious error in the response, specifically: _____

☐

Edited identifiers where upper case is used but lower case is required, or vice versa.

☐

Corrected an error in the Number of Sequences field, specifically: _____

☐

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐

Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐

Other:

Seqs 94, 97 - corrected misaligned amino acid nos.



1600

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/701,588C

TIME: 09:55:09

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\12162002\I701588C.raw

SEQUENCE LISTING

```

3 (1) GENERAL INFORMATION:
5   (i) APPLICANT: UNITED BIOMEDICAL INC., ET AL.
7   (ii) TITLE OF INVENTION: ARTIFICIAL T HELPER CELL
8                               EPITOPES AS IMMUNE STIMULATORS FOR SYNTHETIC
9                               EPTIDE IMMUNOGENS
11  (iii) NUMBER OF SEQUENCES: 151
13  (iv) CORRESPONDENCE ADDRESS:
14      (A) ADDRESSEE: Morgan & Finnegan, L.L.P.
15      (B) STREET: 345 Park Avenue
16      (C) CITY: New York
17      (D) STATE: NY
18      (E) COUNTRY: USA
19      (F) ZIP: 10154-0054
21  (v) COMPUTER READABLE FORM:
22      (A) MEDIUM TYPE: Floppy disk
23      (B) COMPUTER: IBM PC compatible
24      (C) OPERATING SYSTEM: PC Windows
25      (D) SOFTWARE: Word 97
27  (vi) CURRENT APPLICATION DATA:
C--> 28      (A) APPLICATION NUMBER: US/09/701,588C
C--> 29      (B) FILING DATE: 29-Nov-2002
30      (C) CLASSIFICATION:
32  (vii) PRIOR APPLICATION DATA:
33      (A) APPLICATION NUMBER: 09/100,414
34      (B) FILING DATE: 20-JUNE-1998
36  (viii) ATTORNEY/AGENT INFORMATION:
37      (A) NAME: Maria H. Lin
38      (B) REGISTRATION NUMBER: 29,323
39      (C) REFERENCE/DOCKET NUMBER: 1151-4158PC1
41  (ix) TELECOMMUNICATION INFORMATION:
42      (A) TELEPHONE: 212-758-4800
43      (B) TELEFAX: 212-751-6849
46 (2) INFORMATION FOR SEQ ID NO: 1:
48   (i) SEQUENCE CHARACTERISTICS:
49       (A) LENGTH: 15 amino acids
50       (B) TYPE: amino acid
51       (D) TOPOLOGY: linear
53   (ii) MOLECULE TYPE: peptide
55   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
57   Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu
58   1           5           10
59   Glu Gly Val

```

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Input Set : A:\PTO.AMC.txt

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```

60          15
62 (2) INFORMATION FOR SEQ ID NO: 2:
64   (i) SEQUENCE CHARACTERISTICS:
65       (A) LENGTH: 16 amino acids
66       (B) TYPE: amino acid
67       (D) TOPOLOGY: linear
69   (ii) MOLECULE TYPE: peptide
71   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
73     Asp Leu Ser Asp Leu Lys Gly Leu Leu Leu His Lys
74       1             5             10
75     Leu Asp Gly Leu
76           15
78 (2) INFORMATION FOR SEQ ID NO: 3:
79   (i) SEQUENCE CHARACTERISTICS:
80       (A) LENGTH: 16 amino acids
81       (B) TYPE: amino acid
C--> 82   (D) TOPOLOGY: LINEAR
84   (ii) MOLECULE TYPE: peptide
86   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
88     Glu Ile Ser Glu Ile Arg Gly Ile Ile Ile His Arg
89       1             5             10
90     Ile Glu Gly Ile
91           15
93 (2) INFORMATION FOR SEQ ID NO: 4:
94   (i) SEQUENCE CHARACTERISTICS:
95       (A) LENGTH: 16 amino acids
96       (B) TYPE: amino acid
C--> 97   (D) TOPOLOGY: LINEAR
99   (ii) MOLECULE TYPE: peptide
101  (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
103     Asp Val Ser Asp Val Lys Gly Val Val Val His Lys
104       1             5             10
105     Val Asp Gly Val
106           15
108 (2) INFORMATION FOR SEQ ID NO: 5:
110   (i) SEQUENCE CHARACTERISTICS:
111       (A) LENGTH: 16 amino acids
112       (B) TYPE: amino acid
C--> 113   (D) TOPOLOGY: LINEAR
115   (ii) MOLECULE TYPE: peptide
117   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
119     Asp Phe Ser Asp Phe Lys Gly Phe Phe Phe His Lys
120       1             5             10
121     Phe Asp Gly Phe
122           15
124 (2) INFORMATION FOR SEQ ID NO: 6:
126   (i) SEQUENCE CHARACTERISTICS:
127       (A) LENGTH: 15 amino acids
128       (B) TYPE: amino acid

```

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129      (D) TOPOLOGY: linear
131      (ii) MOLECULE TYPE: peptide
133      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
135      Ile Ser Glu Ile Lys Gly Val Ile Val His Lys Ile
136      1              5              10
137      Glu Gly Ile
138      15
140 (2) INFORMATION FOR SEQ ID NO: 7:
142      (i) SEQUENCE CHARACTERISTICS:
143          (A) LENGTH: 15 amino acids
144          (B) TYPE: amino acid
145          (D) TOPOLOGY: linear
147      (ii) MOLECULE TYPE: peptide
149      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
151      Met Thr Glu Ile Arg Thr Val Ile Val Thr Arg Met
152      1              5              10
153      Glu Thr Met
154      15
156 (2) INFORMATION FOR SEQ ID NO: 8:
158      (i) SEQUENCE CHARACTERISTICS:
159          (A) LENGTH: 15 amino acids
160          (B) TYPE: amino acid
161          (D) TOPOLOGY: linear
163      (ii) MOLECULE TYPE: peptide
165      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
167      Leu Ser Glu Ile Lys Gly Val Ile Val His Lys
168      1              5              10
169      Leu Glu Gly Val
170      15
172 (2) INFORMATION FOR SEQ ID NO: 9:
174      (i) SEQUENCE CHARACTERISTICS:
175          (A) LENGTH: 15 amino acids
176          (B) TYPE: amino acid
177          (D) TOPOLOGY: linear
179      (ii) MOLECULE TYPE: peptide
181      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
183      Ile Thr Glu Ile Arg Thr Val Ile Val Thr Arg Ile
184      1              5              10
185      Glu Thr Ile
186      15
188 (2) INFORMATION FOR SEQ ID NO: 10:
190      (i) SEQUENCE CHARACTERISTICS:
191          (A) LENGTH: 15 amino acids
192          (B) TYPE: amino acid
193          (D) TOPOLOGY: linear
195      (ii) MOLECULE TYPE: peptide
197      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
199      Met Ser Glu Ile Lys Gly Val Ile Val His Lys Leu
200      1              5              10

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```

201      Glu Gly Met
202          15
204 (2) INFORMATION FOR SEQ ID NO: 11:
206      (i) SEQUENCE CHARACTERISTICS:
207          (A) LENGTH: 15 amino acids
208          (B) TYPE: amino acid
209          (D) TOPOLOGY: linear
211      (ii) MOLECULE TYPE: peptide
213      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
215      Leu Thr Glu Met Arg Thr Val Ile Val Thr Arg Met
216          1              5              10
217      Glu Thr Val
218          15
220 (2) INFORMATION FOR SEQ ID NO: 12:
222      (i) SEQUENCE CHARACTERISTICS:
223          (A) LENGTH: 15 amino acids
224          (B) TYPE: amino acid
225          (D) TOPOLOGY: linear
227      (ii) MOLECULE TYPE: peptide
229      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
231      Ile Thr Glu Ile Arg Thr Val Ile Val Thr Arg Ile
232          1              5              10
233      Glu Thr Ile
234          15
236 (2) INFORMATION FOR SEQ ID NO: 13:
238      (i) SEQUENCE CHARACTERISTICS:
239          (A) LENGTH: 15 amino acids
240          (B) TYPE: amino acid
241          (D) TOPOLOGY: linear
243      (ii) MOLECULE TYPE: peptide
245      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
247      Met Ser Glu Met Lys Gly Val Ile Val His Lys Met
248          1              5              10
249      Glu Gly Met
250          15
252 (2) INFORMATION FOR SEQ ID NO: 14:
254      (i) SEQUENCE CHARACTERISTICS:
255          (A) LENGTH: 15 amino acids
256          (B) TYPE: amino acid
257          (D) TOPOLOGY: linear
259      (ii) MOLECULE TYPE: peptide
261      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
263      Leu Thr Glu Ile Arg Thr Val Ile Val Thr Arg Leu
264          1              5              10
265      Glu Thr Val
266          15
268 (2) INFORMATION FOR SEQ ID NO: 15:
270      (i) SEQUENCE CHARACTERISTICS:
271          (A) LENGTH: 19 amino acids

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Input Set.: A:\PTO.AMC.txt

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```

272      (B) TYPE: amino acid
273      (D) TOPOLOGY: linear
275      (ii) MOLECULE TYPE: peptide
277      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
279      Ile Ser Ile Ser Glu Ile Lys Gly Val Ile Val His
280      1             5             10
281      Lys Ile Glu Gly Ile Leu Phe
282      15
284 (2) INFORMATION FOR SEQ ID NO: 16:
286      (i) SEQUENCE CHARACTERISTICS:
287          (A) LENGTH: 19 amino acids
288          (B) TYPE: amino acid
289          (D) TOPOLOGY: linear
291      (ii) MOLECULE TYPE: peptide
293      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
295      Ile Ser Met Thr Glu Ile Arg Thr Val Ile Val Thr
296      1             5             10
297      Arg Met Glu Thr Met Leu Phe
298      15
300 (2) INFORMATION FOR SEQ ID NO: 17:
302      (i) SEQUENCE CHARACTERISTICS:
303          (A) LENGTH: 19 amino acids
304          (B) TYPE: amino acid
305          (D) TOPOLOGY: linear
307      (ii) MOLECULE TYPE: peptide
309      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
311      Ile Ser Leu Ser Glu Ile Lys Gly Val Ile Val His
312      1             5             10
313      Lys Leu Glu Gly Val Leu Phe
314      15
316 (2) INFORMATION FOR SEQ ID NO: 18:
318      (i) SEQUENCE CHARACTERISTICS:
319          (A) LENGTH: 19 amino acids
320          (B) TYPE: amino acid
321          (D) TOPOLOGY: linear
323      (ii) MOLECULE TYPE: peptide
325      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:
327      Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
328      1             5             10
329      Arg Ile Glu Thr Ile Leu Phe
330      15
332 (2) INFORMATION FOR SEQ ID NO: 19:
334      (i) SEQUENCE CHARACTERISTICS:
335          (A) LENGTH: 19 amino acids
336          (B) TYPE: amino acid
337          (D) TOPOLOGY: linear
339      (ii) MOLECULE TYPE: peptide
341      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:
343      Ile Ser Leu Ser Glu Ile Lys Gly Val Ile Val His

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1600

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/701,588C

TIME: 09:28:55

Input Set : A:\11514158.txt

Output Set: N:\CRF4\12162002\I701588C.raw

SEQUENCE LISTING

3 (1) GENERAL INFORMATION:
 5 (i) APPLICANT: UNITED BIOMEDICAL INC., ET AL.
 7 (ii) TITLE OF INVENTION: ARTIFICIAL T HELPER CELL
 8 EPITOPES AS IMMUNE STIMULATORS FOR SYNTHETIC
 9 PEPTIDE IMMUNOGENS
 11 (iii) NUMBER OF SEQUENCES: 151
 13 (iv) CORRESPONDENCE ADDRESS:
 14 (A) ADDRESSEE: Morgan & Finnegan, L.L.P.
 15 (B) STREET: 345 Park Avenue
 16 (C) CITY: New York
 17 (D) STATE: NY
 18 (E) COUNTRY: USA
 19 (F) ZIP: 10154-0054
 21 (v) COMPUTER READABLE FORM:
 22 (A) MEDIUM TYPE: Floppy disk
 23 (B) COMPUTER: IBM PC compatible
 24 (C) OPERATING SYSTEM: PC Windows
 25 (D) SOFTWARE: Word 97
 27 (vi) CURRENT APPLICATION DATA:
 C--> 28 (A) APPLICATION NUMBER: US/09/701,588C
 C--> 29 (B) FILING DATE: 29-Nov-2002
 30 (C) CLASSIFICATION:
 32 (vii) PRIOR APPLICATION DATA:
 33 (A) APPLICATION NUMBER: 09/100,414
 34 (B) FILING DATE: 20-JUNE-1998
 36 (viii) ATTORNEY/AGENT INFORMATION:
 37 (A) NAME: Maria H. Lin
 38 (B) REGISTRATION NUMBER: 29,323
 39 (C) REFERENCE/DOCKET NUMBER: 1151-4158PC1
 41 (ix) TELECOMMUNICATION INFORMATION:
 42 (A) TELEPHONE: 212-758-4800
 43 (B) TELEFAX: 212-751-6849

**Does Not Comply
Corrected Diskette Needed**

ERRORED SEQUENCES

1681 (2) INFORMATION FOR SEQ ID NO: 94:
 1683 (i) SEQUENCE CHARACTERISTICS:
 1684 (A) LENGTH: 46 amino acids
 1685 (B) TYPE: amino acid
 1686 (D) TOPOLOGY: linear
 1688 (ii) MOLECULE TYPE: peptide

P.2

RAW SEQUENCE LISTING

DATE: 12/16/2002

PATENT APPLICATION: US/09/701,588C

TIME: 09:28:55

Input Set : A:\11514158.txt

Output Set: N:\CRF4\12162002\I701588C.raw

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1691      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:
1693      Ile Ser Ile Thr Glu Ile Arg Thr Val Ile Val Thr
1694      1                5                10
1695      Arg Ile Glu Thr Ile Leu Phe Gly Gly Cys Gly Glu
1696      15                20
1697      Thr Tyr Gln Ser Arg Val Thr His Pro His Leu Pro
E--> 1698      25                30                35-35
1699      Arg Ala Leu Met Arg Ser Thr Thr Lys Cys
E--> 1700      40-40                45-45
1743 (2) INFORMATION FOR SEQ ID NO: 97:
1745      (i) SEQUENCE CHARACTERISTICS:
1746          (A) LENGTH: 42 amino acids
1747          (B) TYPE: amino acid
1748          (D) TOPOLOGY: linear
1750      (ii) MOLECULE TYPE: peptide
1752      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:
1754      Leu Ser Glu Ile Lys Gly Val Ile Val His Lys Leu
1755      1                5                10
1756      Glu Gly Val Gly Gly Cys Gly Glu Thr Tyr Gln Ser
1757      15                20
1758      Arg Val Thr His Pro His Leu Pro Arg Ala Leu Met
E--> 1759      25                30                35-35
1760      Arg Ser Thr Thr Lys Cys
E--> 1761      40-40

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/701,588C

DATE: 12/16/2002

TIME: 09:28:56

Input Set : A:\11514158.txt

Output Set: N:\CRF4\12162002\I701588C.raw

L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:82 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:97 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:113 M:220 C: Keyword misspelled or invalid format, [(D) TOPOLOGY:]
L:1417 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:79 after pos.:0
L:1698 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:94
M:332 Repeated in SeqNo=94
L:1759 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:97
M:332 Repeated in SeqNo=97
L:2204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:12
L:2222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:121 after pos.:12
L:2240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:122 after pos.:12
L:2309 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:126 after pos.:12
L:2337 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:12
L:2364 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2370 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:12
L:2391 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:129 after pos.:12
L:2506 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2511 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:136 after pos.:0
L:2530 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2534 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 after pos.:0
L:2553 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2557 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:0
L:2576 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:0
L:2599 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2603 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0
L:2622 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:0
L:2645 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:0
L:2668 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2672 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:0
L:2691 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2695 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:0
L:2714 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2718 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:0
L:2737 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2741 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:0
L:2760 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:0
L:2830 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]
L:2836 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:12
L:2857 M:220 C: Keyword misspelled or invalid format, [(D) OTHER INFORMATION:]

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/701,588C

DATE: 12/16/2002

TIME: 09:28:56

Input Set : A:\11514158.txt

Output Set: N:\CRF4\12162002\I701588C.raw

L:2863 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:12